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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/878,748 | 06/11/2001 | Keith E. Buckle | 08935-247001//M-4963 | 2919 |
| 26161 | 7590 | 06/08/2004 | EXAMINER | |
| FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 | | | OMGBA, ESSAMA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3726 | |

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/878,748

Applicant(s)

BUCKLE ET AL.

Examiner

Essama Omgba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,22-27,29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,22-27,29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 20, 22-27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansfield, Jr. et al. (US Patent 5,279,905) in view of Moriwaki et al. (US Patent 6,333,124) and Oltman (US Patent 5,945,230).

Mansfield, Jr. et al. discloses a method of making an anode can for an electrochemical cell, the method comprising attaching a copper layer to a stainless steel layer to form a multi-layered sheet, punching a disk from the multi-layered sheet, and forming the disk into an anode cup, see column 4, lines 62-68, and column 5, lines 1-4. Although Mansfield, Jr. et al. does not specifically disclose forming the disk into an anode cup by drawing, however it is known to form multi-layered anode cups by punching disks from multi-layered sheets and drawing the punched out disks into anode cans as attested by Moriwaki et al., see column 1, lines 66 and 67, column 2, lines 1-26 and column 6, lines 49-51. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the anode can of Mansfield, Jr. et al. by drawing the punched out disk, in light of the teachings of Moriwaki et al., in order to improve productivity. Mansfield, Jr. et al./Moriwaki et al. does not disclose the ratio of the copper layer thickness to the stainless steel layer thickness

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to be at least .01:1 with the thickness of the drawn anode can being no more than 0.0050 inch. However Oltman teaches such ratio and thickness of drawn anode cans, see column 3, lines 39-49, column 6, lines 33-39, column 7, lines 1-67 and column 8, lines 1-6. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the multi-layered anode can of Mansfield, Jr. et al./Moriwaki et al. with a ratio of the copper layer thickness to the stainless layer thickness of at least .010:1 with the thickness of the drawn anode can no more than 0.0050 inch, in light of the teachings of Oltman, in order to provide greater strength per unit of thickness of the can. Although Oltman discloses the thickness of the drawn anode can to be up to 0.0055 inch, however it would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the thickness of the drawn anode can of Mansfield, Jr. et al./Moriwaki et al./Oltman to no more than 0.0050 inch, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Regarding the recitation of attaching a second copper layer to at least a portion of the drawn anode can, Applicant should note that post attachment of a second copper layer to at least a portion of the drawn anode can is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in providing the required copper layer in one step as taught by Mansfield, Jr. et al. versus post attachment of a second copper layer, as long as an effective copper layer is provided on the drawn anode can. Also Mansfield, Jr. et al. discloses using a "bilaminate of copper on a stainless steel or a laminate made

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from more than three layers” see column 4, lines 67-68 and column 5, lines 1-2.

Applicant should also note that although the ratio between the layers of stainless steel, copper and nickel are given as a function of their volume, however the volume of the different layers is directly proportional to their thicknesses, the length being constant.

Response to Arguments

3. Applicant's arguments filed on March 25, 2004 have been fully considered but they are not persuasive.

In response to Applicant's request of a teaching of an extra layer of copper, Applicant's attention is directed to the Mansfield, Jr. et al.'s references, column 4, lines 67-68 and column 5, lines 1-2 as outlined in the above rejection. This teaching of the Mansfield reference is the examiner's support for obviousness. Furthermore the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

In view of the above remarks, the examiner maintains that a *prima facie* case of obviousness has been established in the instant application.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

eo
June 3, 2004

A handwritten signature in black ink, appearing to be "J. M. [unclear]", written in a cursive style.